



# UNITED STATES PATENT AND TRADEMARK OFFICE

2  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,339	01/16/2001	Minoru Miyatake	Q62691	2152

7590 06/17/2003

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037

EXAMINER

AKKAPEDDI, PRASAD R

ART UNIT	PAPER NUMBER
	2871

DATE MAILED: 06/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/759,339	MIYATAKE ET AL.
	Examiner	Art Unit
	Prasad R Akkapeddi	2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 15 April 2003.
- 2a) This action is **FINAL**.                                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-10 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-10 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 16 January 2001 and 04/15/2003 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on 15 April 2003 is: a) approved b) disapproved by the Examiner.
 

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

<input type="checkbox"/> Notice of References Cited (PTO-892)	<input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
<input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	<input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
<input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	<input type="checkbox"/> Other: _____

## DETAILED ACTION

### ***Response to Amendment***

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Drawings***

2. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 04/15/2003 have been disapproved because they introduce new matter into the drawings. 37 CFR 1.121(f) states that no amendment may introduce new matter into the disclosure of an application. The original disclosure does not support the showing of "the optical element (3) on top of the optical element (4) as shown in Fig. 2". As can be seen in Fig. 1, these elements are reversed.
3. The drawings filed on 01/16/2001 and 04/15/2003 are acceptable subject to correction of the informalities indicated on the attached "Notice of Draftsperson's Patent Drawing Review," PTO-948. In order to avoid abandonment of this application,

correction is required in reply to the Office action. The correction will not be held in abeyance.

***Response to Arguments***

4. Applicant's arguments filed on 04/15/2003 have been fully considered but they are not persuasive. The original rejections as stated in the Office Action dated 12/17/2002 are still valid.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2, 6 -10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirasaki et al. (Shirasaki) (U.S. Patent No. 6,025,894) in view of Allen et al. (Allen) (U.S. Patent No. 6,111,696).

a. As to claim 1: Shirasaki discloses an organic electroluminescent device (Fig. 35) comprising an organic electroluminescent element (114) and a light scattering film (120). Shirasaki also discloses that the light produced by the organic electroluminescent element (114) being emitted from the device through the light scattering film (120). Shirasaki discloses a light scattering film of a different design and does not disclose a polarizing light scattering film. However, Allen discloses a polarizing light scatter plate which comprises a light transmitting resin (Col. 5, lines 5-21) and dispersedly contained therein another resin and the

refractive index between the two resins in two directions is disclosed and they satisfy the cited limitations in the claim. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the polarized-light scattering film disclosed by Allen to the organic electroluminescent device disclosed by Shirasaki to achieve desirable degrees of diffuse and specular reflection and transmission, wherein the optical material is stable with respect to stress, strain, temperature differences, electric and magnetic fields and the optical material has low irredescence.

b. As to claims 2, 6 -10: Shirasaki discloses that the scattering film (120) is superposed on the electrode substrate (110) (Fig. 35), the polarizing surface light source comprising the organic electroluminescent device which has an illuminating planar surface and emits a polarized light (Fig. 35) and discloses a liquid-crystal display which comprises the polarizing surface light source (101) and a liquid-crystal cell (140) disposed on the light emission side of the light source (101). Allen discloses birefringent polymer diffusion films (Col. 9, line 52-53) and the retardation is a function of index of refraction of the birefringent material. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the polarized-light scattering film disclosed by Allen to the organic electroluminescent device disclosed by Shirasaki to achieve desirable degrees of diffuse and specular reflection and transmission, wherein the optical material is stable with respect to stress, strain,

temperature differences, electric and magnetic fields and the optical material has low irredescence.

7. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirasaki and Allen as applied to claim1 above, and further in view of Pokorny et al. (Pokorny) (U.S.Patent No. 6,461,775).

Allen discloses that the film is out of thermoplastic resin (Col. 14, line 32), but does not disclose the glass transition temperatures of the film. However, Pokorny discloses thermoplastic material having various glass transition temperatures (Col. 8, lines 58-67). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the type of film disclosed by Pokorny to the display device of Sharsaki and Allen since this reference is only meant to point out that the thermoplastic materials have high glass transition temperatures that could be applicable in liquid crystal display applications.

8. Following is the response by the Examiner to the applicant's arguments:

(a) Applicant's argument No. 1 (Page 6, lines 11-13): The cited prior art does not teach or disclose to apply optical members relating to scattering, which are used in quite different purposes from organic EL devices, in different applications, and one skilled in the art would not be motivated to make such an application.

Examiner's response to argument No. 1: It is recognized that the instant application relates to 'liquid crystal displays (as asserted in claim no. 10), which

comprises a polarizing surface light source of the instant claim 6. Claim 6 of the instant application comprises an organic electro luminescent device of the instant claim 1, which has an illuminating planar surface and emits polarized light'.

Hence, the invention relates to liquid crystal display devices that comprises a polarizing light source, which in turn comprises an organic electroluminescent element and a polarizing-light scattering film.

The cited prior art of Shirasaki relates to an organic electroluminescent device as a back light of a liquid crystal display panel. Although Shirasaki teaches the use of light control member for passing light with or without scattering, the light control member is not of a polarizing light scattering film. Allen on the other hand, in disclosing applications that require polarized light, such as liquid crystal displays (col.30, lines 44-48), discloses a film that polarizes the light and scatters (col. 4, lines 49-57). In (col. 5, lines 5-21), Allen gives the composition of such a film. Hence, the cited prior art does teach all the relevant aspects of the instant application i.e., optical members relating to scattering that are used in liquid crystal displays.

(b) Applicant's argument No. 2 (page 6, line 16-18): One skilled in the art .....(due to reflection to visible direction)'.

Examiner's response to argument No. 2: The statement 'due to reflection to visible direction' is not understood by the Examiner. The Examiner asks the applicant to please properly explain this statement.

(c) Applicant' argument No. 3 (Page 6, lines 19-20 and Page 7, lines 1-4):  
'the concept of the present invention that light is emitted as a polarizing light while improving external emission efficiency of an organic EL by selective polarized.....differs from the concept of visibility improvement as disclosed by Shirasaki'.

Examiner's response to argument No. 3: As pointed out above in response to argument No. 1, the combination of Shirasaki and Allen does teach the use of polarizing light scattering film in liquid crystal displays which use electroluminescent light source.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prasad R Akkapeddi whose telephone number is 703-305-4767. The examiner can normally be reached on 7:00AM to 5:30PM M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on 703-305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0530.

\*\*\*

June 5, 2003

  
ROBERT K. KIM  
SUPERVISORY EXAMINER  
TECHNOLOGY CENTER 2800